

WHAT IS CLAIMED IS:

1. A device for spotwise imaging printing surfaces comprising:
  - a laser light source producing at least one laser beam movable relative to a printing surface, the laser beam defining an image spot on the printing surface, the laser beam having a laser power; and
  - a laser control varying the laser power or an exposure time as a function of a distance of the laser light source from the image spot.
2. The device as recited in claim 1 further comprising a distance meter for determining the distance of laser light source from the image spot.
3. The device as recited in claim 1 wherein the laser light source includes a diode laser.
4. The device as recited in claim 1 wherein the laser light source produces a plurality of laser beams spatially separated from one another for simultaneous imaging a plurality of printing spots.
5. The device as recited in claim 1 wherein the laser light source includes an individually controllable diode laser array.
6. A method for imaging printing surfaces using laser light comprising the steps of:
  - providing a laser light source for generating a laser beam having a position-dependent intensity distribution in two spatial directions perpendicular to a propagation axis, and a specific divergence;
  - providing a printing surface at a distance from the laser light source;
  - exposing the printing surface located at a certain distance from the laser light source;
  - and
  - varying a laser power or exposure time so as to vary a spot size of image spots on the printing surface.

7. The method as recited in claim 6 wherein the varying of the laser power or exposure time is a function of the distance of the laser light source from the image spot on the printing surface.

8. A method for generating printing spots of desired size comprising the steps of:

providing a laser light source for generating a laser beam having a position-dependent intensity distribution in two spatial directions perpendicular to a propagation axis, and a certain divergence;

providing a printing surface at a distance from the laser light source;

measuring the distance of the laser light source from the printing surface; and

adjusting the spot size to a predetermined value by varying a laser power or exposure time.

9. The method as recited in claim 8 wherein the varying of the laser power or exposure time is a function of the distance of the laser light source from an image spot on the printing surface.

10. A printing unit comprising:

a printing surface; and

a laser light source for spotwise imaging the printing surface, the laser light source producing at least one laser beam movable relative to the printing surface, the laser beam defining an image spot on the printing surface, the laser beam having a laser power, the device also including a laser control varying the laser power or an exposure time as a function of a distance of the laser light source from the image spot.

11. A printing machine comprising:

at least one printing unit, the printing unit including a printing surface; and a laser light source for spotwise imaging the printing surface, the laser light source producing at least one laser beam movable relative to the printing surface, the laser beam defining an image spot on the printing surface, the laser beam having a laser power, the device also including a laser control varying the laser power or an exposure time as a function of a distance of the laser

[600.1162; A 2890]

light source from the image spot.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	